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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,299

09/15/2005

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PU030087

3592

24498 7590 05/11/2011
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EXAMINER

NGUYEN, STEVEN C

ART UNIT

PAPER NUMBER

2443

MAIL DATE

DELIVERY MODE

05/11/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,299	Applicant(s) BICHOT, GUILLAUME	
	Examiner STEVEN C. NGUYEN	Art Unit 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 10-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the Appeal Brief filed on 08/24/2010.
2. **Claims 1-9, 18-27** are pending in this application.
3. **Claims 21, 27** have been amended.
4. **Claims 10-17** have been previously withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-4, 18-22, 27**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk et al (US 2002/0157019) in view of Xu et al (US 6,151,628), hereinafter Kadyk and Xu.

6. **Regarding Claims 1, 18**, Kadyk disclosed:

- a. A method for establishing a signaling connection between a client terminal and a communications network, the method comprising the steps of (*abstract*);

- b. establishing an authentication connection between the client terminal and the communications network (*Paragraph 54 states that the client is authenticated by the proxy*);
- c. transmitting an authentication message from the communications network to the client terminal (*Paragraph 54 states that the proxy issues an authenticate challenge and that client receives it*);
- d. establishing a connection tunnel between the client terminal and the communications network (*Paragraph 53 states that the client requests a secure client proxy connection and the connection is established*);
- e. transmitting information between the client terminal and the communications network via the connection tunnel (*Paragraph 54 states that the client sends proper authentication credentials to the proxy*);
- f. closing the authentication connection (*Paragraph 55 states that once the client is authenticated, the proxy forwards the request to the end server and a secure end to end connection directly to the server is established. The connection to the proxy is now closed as the client has a direct tunnel to the server as Figure 4 shows*);

Kadyk did not explicitly disclose:

- h. transmitting set-up parameters from the communications network to the client terminal;
- i. establishing a signaling connection for transferring control data;

j. establishing the control data signaling connection tunnel using the set-up parameters;

k. transmitting signaling information via the control data signal connection;

However, Xu disclosed:

l. transmitting set-up parameters from the communications network to the client terminal (*Column 11, Lines 40-49 state that the authentication server sends the client a message that includes identification of the tunneling protocol, tunneling server's IP address, and the port number of the tunneling server to receive the call*);

m. establishing a signaling connection for transferring control data (*Column 13, Lines 45-63 state that a control connection must be established between the PAC and the PNS. The control connection is a standard TCP session over which call control and management information is passed*);

n. establishing the control data signaling connection tunnel using the set-up parameters (*Column 11, Lines 50-58 state that the client sends a request to connect to the tunneling server using the tunneling server's IP address*);

o. transmitting signaling information via the control data signal connection (*Column 13, Lines 45-63 state that the control connection is a standard TCP session over which call control and management information is passed*);

p. The utilization of the readily available transmitting set up parameters and establishing the tunnel using the parameters of Xu would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the

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claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to facilitate in creating a secure connection from the client to the server.

7. Regarding Claim 2, the limitations of claim 1 have been addressed. Kadyk did not explicitly disclose:

a. transmitting from the client terminal to the communications network acknowledgement of receipt of the set up parameters.

However, Xu disclosed:

b. transmitting from the client terminal to the communications network acknowledgement of receipt of the set up parameters (*Column 11, Lines 50-58 state that the client sends a request to connect to the tunneling server using the tunneling server's IP address. The client requesting a connection with the server using the server's IP address supplied by the authentication server is acknowledging that the client received the parameters*);

c. The utilization of the readily available acknowledgement of set up parameters of Xu would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398

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(2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to facilitate in creating a secure connection from the client to the server.

8. Regarding Claim 3, the limitations of claim 1 have been addressed. Kadyk disclosed:

a. wherein the control data signal connection tunnel is a dedicated signaling tunnel (*Paragraph 53 states that the tunnel created between the client and the proxy can be a TLS, L2TP, or any other secure protocol*).

9. Regarding Claims 4, 22, the limitations of claim 1 have been addressed. Kadyk did not explicitly disclose:

a. wherein the client terminal is a mobile terminal and the communications network is a 3G network.

However, Xu disclosed:

b. wherein the client terminal is a mobile terminal and the communications network is a 3G network (*Column 3, Lines 54-62 state that mobile terminals are used along with CDMA standards*);

c. The utilization of the readily available mobile terminals and a 3G network of Xu would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to

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one of ordinary skill in the art at the time of the invention, for example, to allow users to be able to move freely.

11. Regarding Claim 19, the limitations of claim 18 have been addressed. Kadyk disclosed:

a. wherein the step of closing said authentication connection is performed after said step of transmitting control information between said client terminal and said communications network via said control data signaling connection tunnel *(Paragraph 55 states that once the client is authenticated, the proxy forwards the request to the end server and a secure end to end connection directly to the server is established. The connection to the proxy is now closed as the client has a direct tunnel to the server as Figure 4 shows).*

12. Regarding Claim 20, the limitations of claim 18 have been addressed. Kadyk did not explicitly disclose:

a. wherein said steps of establishing an authentication connection and transmitting control information are performed by way of a wireless access point.

However, Xu disclosed:

b. wherein said steps of establishing an authentication connection and transmitting control information are performed by way of a wireless access point *(Column 3, Lines 54-64 states that the mobile devices communicate to the network via the wireless modem);*

c. The utilization of the readily available wireless access point of Xu would have been obvious to one of ordinary skill in the art in view of the teachings of

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Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to allow users to be able to move freely.

12. Regarding Claims 21, 27, Kadyk disclosed:

a. establishing a radio connection between said mobile device and said communications network (*Paragraph 54 states that the client is authenticated by the proxy*);

b. receiving by said mobile device authentication from said communications network (*Paragraph 54 states that proxy sends an authentication challenge to client and client responds*);

c. establishing by said mobile device a tunnel with said communications network (*Paragraph 53 states that the client requests a secure client proxy connection and the connection is established*);

d. receiving by said mobile device an indication from said communications network of completion of authorization to communicate with said communications network through an access point (*Paragraph 55 states that with the client having been authenticated, the proxy performs the act of forwarding the request for a secure end to end connection to the server. The secure connection is encapsulated and established*);

- e. terminating receipt of said authentication by said mobile device

(Paragraph 55 states that once the client is authenticated, the proxy forwards the request to the end server and a secure end to end connection directly to the server is established. The connection to the proxy is now closed as the client has a direct tunnel to the server as Figure 4 shows);

Kadyk did not explicitly disclose:

- f. forwarding by said mobile device to said communications network acknowledgement of receipt of said parameters and an indication to said communications network that said tunnel has been established;

- g. opening a signaling connection through said established tunnel;

However, Xu disclosed:

- h. forwarding by said mobile device to said communications network acknowledgement of receipt of said parameters and an indication to said communications network that said tunnel has been established *(Column 11, Lines 40-49 state that the authentication server sends the client a message that includes identification of the tunneling protocol, tunneling server's IP address, and the port number of the tunneling server to receive the call. Column 11, Lines 50-58 state that the client sends a request to connect to the tunneling server using the tunneling server's IP address. In order to know the IP address of the tunneling server, the message sent from the authentication server must have been received correctly);*

- i. opening a signaling connection through said established tunnel
(Column 13, Lines 45-63 state that a control connection must be established between

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the PAC and the PNS. The control connection is a standard TCP session over which call control and management information is passed);

j. The utilization of the readily available acknowledging receipt of parameters and establishing the tunnel using the parameters of Xu would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to facilitate in creating a secure connection from the client to the server.

13. Claims 5-7, 9, 23-26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk in view of Xu and Ahmavaara (US 2004/0066769).

14. Regarding Claim 5, the limitations of claim 1 have been addressed. Kadyk disclosed:

a. establishing an authentication connection between the client terminal and the communications network is performed by way of a path (*Paragraph 54 states that the client is authenticated by the proxy*);

Kadyk did not explicitly disclose:

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b. including a wireless network which complies with IEEE 802.11 standards.

However, Ahmavaara disclosed:

c. including a wireless network which complies with IEEE 802.11 standards (*Paragraph 42 states that the UE is connected via a wireless connection based on IEEE 802.1x WLAN protocol*);

d. The utilization of the readily available wireless network that complies to IEEE 802.11 standards of Ahmavaara would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to allow users to be able to move freely.

15. Regarding Claims 6, 24, the limitations of claim 1 have been addressed. Kadyk did not explicitly disclose:

a. wherein the step of establishing an authentication connection between the client terminal and the communications network includes the steps of establishing extended authentication protocol over local area network and DIAMETER connections;

However, Ahmavaara disclosed:

b. wherein the step of establishing an authentication connection between the client terminal and the communications network includes the steps of establishing extended authentication protocol over local area network and DIAMETER connections (*Paragraphs 42-43 state that a IEEE 802.1x WLAN is utilized. Due to this, the encapsulation of EAP messages is EAPOL. Paragraph 22 states that the invention can utilize the Diameter protocol*);

c. The utilization of the readily available establishing EAPOL and DIAMETER connections of Ahmavaara would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to allow wireless authentications.

16. Regarding Claims 7, 23, 25, 26, the limitations of claim 1 have been addressed. Kadyk did not explicitly disclose:

a. wherein the control data signal connection tunnel is a general packet radio services (GPRS) tunneling protocol (GTP) tunnel, and the step of transmitting set-up parameters includes the step of transmitting at least one of an internet protocol address and a tunnel identification.

However, Ahmavaara disclosed:

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b. wherein the control data signal connection tunnel is a general packet radio services (GPRS) tunneling protocol (GTP) tunnel (*Paragraph 93 states that the GPRS service is used via the WLAN*);

c. The utilization of the readily available GPRS tunneling protocol GTP tunnel of Ahmavaara would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to efficiently use the radio spectrum.

Xu disclosed:

d. transmitting set-up parameters includes the step of transmitting at least one of an internet protocol address and a tunnel identification (*Column 11, Lines 40-49 state that the authentication server sends the client a message that includes identification of the tunneling protocol, tunneling server's IP address, and the port number of the tunneling server to receive the call*);

e. The utilization of the readily available transmitting set up parameters that includes an IP address and tunnel identification of Xu would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their

respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to facilitate in creating a secure connection from the client to the server.

16. Regarding Claim 9, the limitations of claim 1 have been addressed. Kadyk did not explicitly disclose:

a. wherein the control data signal connection tunnel is a dedicated general packet radio services tunneling protocol tunnel, and the step of transmitting set-up parameters includes the step of transmitting at least one of an internet protocol address and a tunnel identification.

However, Ahmavaara disclosed:

b. wherein the control data signal connection tunnel is a dedicated general packet radio services tunneling protocol tunnel (*Paragraph 93 states that the GPRS service is used via the WLAN*);

c. The utilization of the readily available GPRS tunneling protocol GTP tunnel of Ahmavaara would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable

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results to one of ordinary skill in the art at the time of the invention, for example, to efficiently use the radio spectrum.

Xu disclosed:

d. transmitting set-up parameters includes the step of transmitting at least one of an internet protocol address and a tunnel identification (*Column 11, Lines 40-49 state that the authentication server sends the client a message that includes identification of the tunneling protocol, tunneling server's IP address, and the port number of the tunneling server to receive the call*);

e. The utilization of the readily available transmitting set up parameters that includes an IP address and tunnel identification of Xu would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to facilitate in creating a secure connection from the client to the server.

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kadyk in view of Xu, Ahmavaara, and Lantto (US 2004/0054794).

18. Regarding Claim 8, the limitations of claim 7 have been addressed. Kadyk did not explicitly disclose:

a. transmitting set up parameters includes the step of transmitting quality of service parameters.

However, Lantto disclosed:

b. transmitting set up parameters includes the step of transmitting quality of service parameters (*Paragraph 128 states that parameters that are transmitted include PDP type, Access point name, compression options, IP address, and quality of service options*).

c. The utilization of the readily available transmitting of quality of service parameters of Lantto would have been obvious to one of ordinary skill in the art in view of the teachings of Kadyk since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to ensure data is sent in a timely manner.

Response to Arguments

19. Applicant's arguments filed 03/04/2011 have been fully considered but they are not persuasive. In the remarks, Applicant argued that:

a. Kadyk and Xu do not show or suggest any control data signaling tunnel, nor any closing of an authentication connection.

In response: The Examiner respectfully disagrees. Kadyk discloses closing of the authentication connection as shown in figure 4 and paragraph 55. Kadyk states that once the client is authenticated, the proxy forwards the request to the end server and a secure end to end connection directly to the server is established. The connection to the proxy is now closed as the client has a direct tunnel to the server. The authentication process only occurs to authenticate the client with the proxy server before allowing the client access to the server. Once a secure end to end connection is established with the server, the authentication server is no longer active. The Examiner would also like to note that all connections will close eventually, for instance, in a time out situation. The claim language does not mention how or when the actual authentication connection is closed as it is not tied to any of the other limitations. Therefore, as long as the connection eventually closes, this limitation is disclosed. Xu discloses a control data signaling tunnel in column 13, lines 45-65. Xu states that a control connection must be established before tunneling can occur between two end points. The control connection is described as a standard TCP session over which call control and management information is passed. Therefore, the combination of Kadyk and Xu disclose the limitations of claims 1, 18, 21, and 27.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN C. NGUYEN whose telephone number is (571)270-5663. The examiner can normally be reached on Monday through Thursday with alternating Friday 7:30AM - 5:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/S.C.N./

Examiner, Art Unit 2443

05/06/2011

/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2443